15. (Amended)   A computer program embodying instructions executable by a processing means to perform method steps for determining a compression point in an uplink power control system, the system including a control unit and an antenna unit configured to communicate with each other over a communication channel, said method steps comprising:

generating a signal in said control unit to produce a low level RF signal in said antenna unit;

increasing said signal strength in said control unit to produce a higher level RF signal in said antenna unit;

detecting, in said control unit, a current level in said signal;

determining, in said control unit, a first slope of a theoretical current curve created from at least two detected current levels;

determining, in said control unit, a second slope of said theoretical current curve;

comparing said first and second slopes to determine whether said second slope is greater than said first slope; and

repeating the method steps until said comparing step determines said second slope is not greater than said first slope.

Please add new claims 16-18 as follows:

16. (New)   A method for determining a P1db compression point of a power control system, said system having a control unit in communication with an antenna unit:
in said control unit,

providing a signal to said antenna unit, said signal comprising a signal power level;

detecting a dc current level of said signal;

analyzing a change of said current level, said change corresponding to a difference between a reference point and said detected dc current level;

increasing said signal power level and repeating the above steps; and

determining an inflection point in said change of said current level, said inflection point corresponding to said P1db compression point.